CHAPTER 3

CIRCULATION ELEMENT

Purpose

The Circulation Element designates the general location and extent of existing and proposed major thoroughfares, transportation routes--including those for bicycles and pedestrians--and other local public facilities.

Relationship to Other Elements

The Circulation Element is systematically and reciprocally correlated with the Land Use Element, which includes policies related to the physical framework for development that the circulation system is designed to serve. The trails and bikeways identified in this element are also related to the recreational plans and policies identified in the Open Space and Environmental Conservation Element. Projected noise conditions in the Noise Element are also based on the traffic analysis conducted as part of the Circulation Element.

Much of Milpitas' evolution and recent growth can be attributed to its strategic location at the narrow plain between the Diablo Range and the San Francisco Bay that connects the East Bay and the South Bay. Milpitas is one of the few cities in the Bay Area with access to two interstate highways (Interstates 880 and 680). Almost all of the City is within a mile of the interstates. State Route 237 and the Montague Expressway traverse the City.

While much of the City's economic growth during the 1980s resulted from spillover of high-technology industries and offices from the Silicon Valley, recent gains are partly resultant of Milpitas' links to other places in the Bay Area, as well as the City's emergence as an employment center. Efficient regional connections are important to the continued development of the City and vital to many residents as well; about 79 percent of the City's employed residents in 1990 commuted to a destination outside the City, while 85 percent of the jobs in Milpitas were filled by out-of-City residents (See tables 2-7 and 2-8 in Section 2.3: Jobs Housing Relationship). Mean travel time to work for City residents was 22.9 minutes in 1990, compared to 23.3 minutes for County residents as a whole.

The residents' mode of transportation to work was quite similar to that of County residents in 1990, with about 92 percent of the workers relying on the automobile as the primary mode (Table 3-1). While the proportion of workers using the automobile remained about the same between 1980 and 1990, the proportion of residents car-pooling declined (20.7 percent in 1980 compared to 15.8 percent in 1990, with commensurate increase in the proportion of drive-alone trips). Relatively few work-trips were walking or bicycle trips.

Table 3-1

Mode of Transportation to Work for Residents

	Percent of Total	
	Milpitas	**Santa Clara County**
Car, Truck or Van		
Drove Alone	76.1%	77.7%
Carpooled	15.8%	12.3%
Public Transportation	3.0%	3.0%
Motorcycle	0.7%	0.5%
Bicycle	0.4%	1.5%
Walked	1.3%	2.1%
Other Means	0.7%	0.5%
Worked at Home	2.1%	2.5%
Total Workers	**25,757**	**796,605**

Note: Percentages may not add to 100 because of independent rounding.

Source: 1990 U. S. Census

The Circulation Element provides a framework to guide growth of Milpitas' transportation-related infrastructure over the next 20 years. The Element is closely integrated with the Land Use Element to maintain acceptable level of service as the City grows and to plan an adequate street network to serve future development.

3.1 Relationship to Regional Programs

For a discussion of the Bay Area Air Quality Management District's programs, see Section 3.4.

A recognition of the functional relationships between transportation, land use and air quality, as well as of the need for jurisdictional cooperation, has led to a recent spurt of legislation. The Congestion Management Program requirements in California (1990) and the Intermodal Surface Transportation Efficiency Act (ISTEA; 1991) at the federal level, seek to further cooperative decision-making and provide local agencies with increased flexibility in the allocation of transportation improvement funds.

Major street improvements to meet the needs for a long-range planning horizon are identified in Section 3.3 of this Element. These projects will later be studied in greater detail, and funding and implementation sources would be identified. Many of the projects are part of local and regional programs, including the City's Capital Improvement Program, the Santa Clara County Congestion Management Program (CMP), and the Regional Transportation Improvement Program (RTIP).

Regional Transportation Plan

ISTEA calls upon states to maximize the efficiency of their transportation systems through coordinated state and regional long range transportation planning that defines an integrated multi-modal system and addresses future maintenance and improvement requirements. As the designated metropolitan planning organization for the Bay Area, the Metropolitan Transportation Commission (MTC) is responsible for preparing a long range Regional Transportation Plan (RTP). The RTP includes three major elements: Policy, Financial and Action.

In addition, to remain eligible for federal transportation funds, a region must demonstrate that the highway and transit projects contained in its RTP will help attain and maintain federal air quality standards. Once adopted, a RTP serves as a guide for the region's Transportation Improvement Programs (TIPs) in which projects and their specific funding sources are listed.

1994 Regional Transportation Plan. The RTP considers the long-range mobility needs of the region and provides a blueprint for maintaining and improving key transportation infrastructure and services, termed the Metropolitan Transportation System. RTP implementation would require a strong degree of cooperation among the state, regional, and local agencies responsible for transportation within the region.

The RTP also expands the region's transit network, including several light rail extensions in Santa Clara County (see Section 3.4). It also includes funding for bicycle and pedestrian improvements in each county, including Santa Clara County. These improvements are generally determined by cities and counties through local processes on an annual basis.

Santa Clara County Congestion Management Program

The County Congestion Management Program (CMP) is administered by the Santa Clara County Congestion Management Agency (CMA), which is also responsible for overseeing local agency compliance with state law. The CMP promotes an integrated approach to transportation planning decision-making and seeks to maintain mobility in Santa Clara County by establishing traffic and transit standards, trip-reduction and travel-demand requirements, and by incorporating the transportation implications of land-use decisions in planning efforts.

Cities within the County are responsible for conformance with the adopted service level standards on the principal arterial system defined by the CMP, and for transit standards. They are also responsible for the adoption and implementation of a trip-reduction and travel-demand ordinance and for developing a program to analyze the impacts of land use decisions. Where deficiencies in the system exist, deficiency plans must be adopted and methods of correcting the deficiencies identified. If deficiencies go unmitigated, a city could lose its entitlement to a portion of its gas tax revenues.

Capital Improvements Program (CIP). The CMA maintains a CIP which includes a list of transportation facility improvements that is submitted to the MTC for inclusion in the Regional Transportation Improvement Program (RTIP), or for funding from the state (Flexible Congestion Relief Funds) or from the federal Surface Transportation and the Congestion Mitigation/Air Quality programs.

Traffic level of service (LOS) standards adopted as part of the CMP is discussed in Section 3.2 and the street network in Section 3.3.

3.2 Standards for Traffic Service

Because much of the City is built-out, the primary traffic issues in Milpitas are the feasibility of improvements and achievement of an acceptable level of service, particularly along two major commute corridors that bisect the city. Areas along the local street system not constrained by available rights-of-way are few.

Level of service (LOS) is a measure of quality of traffic service along a roadway or at an intersection. As described in Table 3-2, it ranges from A to F, with LOS A being best and LOS F being worst. LOS A, B and C indicate conditions where traffic can move relatively freely. LOS D describes conditions where delay is noticeable. LOS E indicates significant delays and traffic volumes are generally at or close to capacity. Finally, LOS F characterizes traffic flow at very slow speeds (stop-and-go), and large delays (more than one minute) with queuing at signalized intersections; in effect, traffic demand on the roadway exceeds the roadway's capacity.

CMP Level-of-Service Standards

As required by state law, the Santa Clara County CMP includes level-of-service standards for the designated CMP Roadway System as follows:

- The basic traffic LOS is E;
- The LOS standard for locations with a baseline (1991) LOS F is LOS F;
- The LOS goal for the CMP system is LOS D;

- If the baseline LOS for a CMP System facility was LOS F, then any development project that impacts the facility at or greater than one percent of facility capacity must implement mitigation measures to reduce the development project's impacts below the one percent level or implement the mitigation measures as prescribed in an approved Deficiency Plan. If such a plan is unavailable, the affected cities are required to complete one. Deficiency Plans allow local jurisdictions to implement innovative solutions to transportation problems where specific project mitigation is infeasible and project denial would conflict with other community goals. Deficiency Plans are designed to improve system-wide levels of service and contribute to a significant improvement in air quality.

Table 3-2

Traffic Level Of Service Definitions

Level of Service (LOS)	Traffic Flow Conditions	Maximum Volume to Capacity Ratio
A	Describes primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the arterial class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.	0.6
B	Represents reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the arterial class. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension.	0.7
C	Represents stable operations. However, ability to maneuver and change lanes in midblock locations may be more restricted than in LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50 percent of the average free-flow speed for the arterial class. Motorists will experience an appreciable tension while driving.	0.8
D	Borders on a range on which small increases in flow may cause substantial increases in approach delay and, hence decreases in arterial speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of free-flow speed.	0.9
E	Characterized by significant approach delays and average travel speeds of one-third the free-flow speed or lower. Such operations are caused by some combination or adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.	1.0
F	Characterizes arterial flow at extremely low speeds, below one-third to one-quarter of the free flow speed. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse progression is frequently a contributor to this condition.	>1.0

Source: *Highway Capacity Manua*l, 1985.

Traffic Analysis

In order to ensure systematic and reciprocal correlation between the Land Use and the Circulation elements, a forecast of traffic conditions was made that included projected 2010 development, in accordance with current General Plan land use designation. The forecast utilized the City's transportation forecasting model, which was updated as part of the City's Deficiency Plan Preparation (see *City of Milpitas Model Update for the Deficiency Plan*, October 1993). The forecast included the County CMA estimates of land use in the year 2010 in all parts of the County outside of the City's Planning Area. In the Planning Area, overall employment projections based on ABAG's Projections '94 were appropriately converted to land uses and distributed based on General Plan designations. The model was used to produce forecasts of peak-hour traffic on the freeways, arterials and many of the collector streets in the City. Results of the traffic analysis are included in Appendix A. Major improvements needed to accommodate these anticipated traffic increases are discussed in Section 3.3.

3.3 Street Network and Classification

A hierarchy of streets will be required to provide access to future development and maintain acceptable levels of service. The circulation network in the General Plan Diagram (Figure 2-1) identifies the functional classifications of key routes. A route's design is determined by the projected traffic level on the street. The classifications, and their required access standards are identified in Table 3-3. Street widths, number of lanes, and the need for on-street parking are to be tailored to individual conditions.

Table 3-3

Street Classifications

Street Type	Function	Access	Discussion
Freeway	Provides for intra- and inter- regional mobility.	Restricted to primary arterials and expressways via interchanges.	Interstates 880 and 680 and State Route 237 west of 880 are the freeways in the Planning Area.
Expressway	Provide for movement of through-traffic.	Limited accesses to abutting properties; varies according to situation.	
Arterial	Collect and distribute traffic from freeways and expressways to collector streets, and vice versa.	Varies according to situation.	State Route 237 east of 880 is a signalized arterial being used as a regional freeway to freeway connector.
Collector	Serve as connectors between local and arterial streets and provide direct access to parcels.	Non-residential driveways and/or intersecting streets or collector streets should be no closer than 300 – 400 feet apart.	
Local Street	Provide access to parcels.	Access is not restricted.	Local streets constitute the largest part of the City's circulation system.

Major Improvements Needed

Due to regional through-traffic along sub-regional routes, such as State Route 237 and Montague Expressway, a large increase in traffic by year 2010 is anticipated. To accommodate growth and still maintain an acceptable level of service would require widening sections of these facilities to eight lanes. However, the existing six-lane Calaveras Boulevard cannot be widened to eight lanes, due to physical constraints. The County CMA is in the process of developing a subregional deficiency plan to improve levels of service on subregional roadways, including State Route 237 and Montague Expressway. The subregional deficiency plan will be finalized by either late 1995 or early 1996.

With the purchase of additional right-of-way, Montague Expressway has the capability to be widened from the existing six-lane facility to an eight-lane facility. However, funding is not available in the foreseeable future. The Santa Clara County Transportation Agency recently installed interconnect cables along Montague Expressway and continues to fine tune the timing plans to provide better progression along the expressway.

A Citywide Deficiency Plan would be required to address the potential, unavoidable downgrading of levels of service at those intersections along Montague Expressway and Calaveras Boulevard included in the congestion management program (CMP) network. The Citywide deficiency plan, will adopt and implement those measures outlined in the countywide subregional deficiency plan. The City Plan could also adopt strategies and policies to encourage non-vehicle mode of transportation (such as bike and transit). Programs that promote ride-sharing, trip-linking, and flexible work hours would also be considered.

Consistency with the Capital Improvement Program

Because of the incremental nature of development, the General Plan does not outline a schedule for the improvements to the City's street system discussed above. Projects identified in the Plan will be prioritized and included in the City's ongoing Capital Improvement Program (CIP). Modifications to the CIP are to be made as a normal part of the City's budgeting and implementation process and do not require amendment of the General Plan.

3.4 Transportation Systems Management

The term "Transportation Systems Management" (TSM) refers to measures designed to reduce peak-period auto traffic, by making more efficient use of existing transportation resources, and emphasizing ride-sharing and non-auto alternatives. These include public transit, flexible working hours, carpooling and vanpooling, and incentives to increase the use of these alternatives. TSM has become increasingly important in the effort to enhance mobility through efficient use of alternative modes of transportation, and in meeting federal and state air quality standards.

A successful TSM program is an essential and important element in the continuing effort to achieve acceptable levels of traffic service based on the standards in Section 3.2. The specific objectives of TSM are to:

- Reduce peak hour traffic congestion by reducing the number of single-occupant vehicle trips associated with commuting;
- Reduce or delay the need for street improvements by making more efficient use of existing facilities;
- Reduce future air pollution concentrations and strive towards meeting state and federal ambient air pollution standards by reducing the number of single-occupant vehicle trips associated with commuting; and
- Reduce consumption of energy for transportation uses, thereby contributing to the national policy to increase energy self-sufficiency.

Transportation Control Measures

Under the California Clean Air Act (CCAA) of 1988, the Bay Area Air Quality Management District (BAAQMD) is required to prepare a Clean Air Plan (CAP) to achieve state standards for ozone and carbon monoxide. The 1991 CAP must be updated every three years, and will be revised in 1994.

The CCAA states that attainment plans should emphasize reducing emissions from transportation and area wide sources. The Act requires air districts to adopt, implement, and enforce Transportation Control Measures (TCMs). TCMs are defined in state law as “any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions.” Although cars are about 90 percent cleaner than they were 20 years ago and fleet turnover will produce the bulk of mobile source emission reductions in the future, the state plan still requires TCMs as a complementary strategy. MTC develops and updates a list of TCMs to the BAAQMD.

The Bay Area is classified as a “serious” non-attainment area with respect to state ozone standards. For “serious” areas, the CCAA requires that the CAP address the following specific performance standards:

- Average vehicle ridership of 1.4 during weekday commute hours by 1999;
- No net increase in motor vehicle emissions after 1997; and
- Substantially reduced rate of increase in vehicle trips and vehicle miles traveled.

The 1991 CAP's TCM plan includes 23 measures to be implemented in two phases. Phase 1 consists of “reasonably available” measures, those that can be adopted in the near term. Phase 2 includes measures that are not expected to be initiated until after the CAP is updated in late 1994. Many Phase 2 measures require additional funding or legislative approval.

In addition, the Bay Area does not attain the state particulate standard, which is also more stringent than the federal PM_{10} standard. However, at this time the CCAA does not include any requirements for particulate non-attainment areas, so no state-level particulate attainment plans, or implementing measures, have been developed.

Bay Area Air Quality Management District Regulation 13, Rule 1. BAAQMD adopted the Rule in December 1992 after a yearlong process of public hearings and consultation. The Rule seeks to reduce air pollution emissions from vehicles by reducing their use in traveling to and from work sites. The Rule requires employers with 100 or more employees at work-sites to comply with specific trip reduction requirements.

Although the BAAQMD is legally charged with implementing the Rule, it may delegate implementation and enforcement to local agencies if certain conditions are met. In June 1993 the Santa Clara CMA decided to not seek delegation of the Rule. Thus, employers in the County will be regulated directly by BAAQMD. Because of a substantial overlap between the CMP required TDM ordinances and CAA-required TCM measures, the CMA has determined that member agencies must:

1 Adopt an ordinance indicating that BAAQMD will be implementing the rule in their jurisdiction; and

2 Annually confirm that they have adopted and retained the ordinance. This confirmation would be submitted annually to the CMA as part of the monitoring process.

State law requires Congestion Management Agencies to ensure that their constituent cities adopt and implement a trip reduction and travel demand program. These requirements are included in Santa Clara County's 1993 Congestion Management Program.

Transit

Only three percent of Milpitas' workforce uses public transportation to travel to work (see Table 3–1). The primary function of transit in the City is to transport residents from the City to

commercial and employment centers and to other transit stations in surrounding jurisdictions. The bus transfer station and park-and-ride lot, at North Main Street and Weller Lane acts as a hub for most of the bus lines that serve Milpitas. Frequent service (less than 30 minute headway) is offered primarily during peak hours (6 AM to 9 AM and 3 PM to 6 PM on weekdays) while headway increase to 30 minutes or more during the midday, after 6 PM and on weekends and holidays.

The Santa Clara County Transportation Agency (SCCTA) provides bus service for the Milpitas Planning Area. Local bus routes provide service to Mountain View, Sunnyvale, Great America, southeast and east San Jose, and Evergreen College, at average headway of 15 to 30 minutes during commute hours. Service to the Fremont BART station is provided by express buses. Other destinations offered by SCCTA include Los Altos and Moffett Field. Additionally, AC Transit provides lines to the Fremont BART station. Details on transit service are included in Appendix B.

Light Rail. The Locally Preferred Alternative for the Tasman Corridor Project, selected by the Metropolitan Transportation Commission and the Santa Clara County Transportation Agency, would extend the existing light rail in the County through Milpitas. The Eastern Segment of the Tasman Corridor would extend east from the existing terminus of the Guadalupe Corridor near North First Street in the City of San Jose, pass through Milpitas, and terminate just east of I-680 in San Jose. Of the 19 new stations that would be constructed as part of the Tasman Corridor Project, three would be in Milpitas (see General Plan Diagram in Chapter 2).

3.5 Pedestrian and Bicycle Circulation

The relatively flat topography of the Valley Floor and the City's mild Mediterranean climate are conducive to walking and bicycling. Yet, few residents utilize these means of transportation for commuting. Walking and bicycling constituted only about 1.7 percent of the total trips made by City's employed residents in 1990 (see Table 3-1). Measures aggressively promoting and accommodating alternative mode choice should prove to increase this percentage in the future.

Many parts of the City also hold good potential for recreational biking and walking, including along Coyote Creek and within the Hillside Area. There are also additional opportunities along many of the creek channels and the Hetch-Hetchy rights-of-way.

Milpitas is crossed by two freeways and two railroad tracks; which fragment the City's circulation system, including facilities for biking and walking. In addition, many shopping centers and neighborhoods are accessed through a limited number of entrances, through which pedestrians and bicyclists must compete with the automobile for safe passage to their destination. As Milpitas is approaching build out, it is critical that bikeways and trails be addressed with each planned development and redevelopment program.

Bicycling and walking are recognized as vital forms of transportation in the Federal legislation, which calls upon the states to maximize the efficiency of the existing roadway system and to provide for intermodal transportation. Pedestrians and bicyclists are integral to the success of the intermodal system.

Bikeways

The City's existing system of bike lanes and routes support this transportation mode. Since the early 1990s, the City has continued the development of an on-street bikeway system along new streets. The City's Bicycle Transportation Advisory Committee (BTAC) serves as an advisory body to the City Council on matters relating to planning, modifications and expansion of the City's Bikeway System. BTAC also promotes safety, education and awareness of bicycling issues.

The City has adopted a Bikeways Master Plan which:

- Presents a bicycling overview.
- Discusses the interrelationship between the City's bikeway and trail systems.
- Classifies bikeways (see Table 3-4 below) and assigns suitability ratings for both bike routes and designated streets.
- Lists proposed projects.

- Depicts the existing and proposed on-street Bikeway System, including those contained in the Midtown Specific Plan area—see Figure 3-1—including undesignated, rated streets.

- Contains specific bikeway design guidelines and implementation actions.

Table 3-4

Bikeway Classifications

Classification	Function
Bike Paths	Provide exclusive right-of-way for bicyclists with cross flows by motorists minimized to the extent possible.
Bike Lanes	To provide preferential use of the paved area of roadway for bicyclists by establishing specific lines of demarcation between areas reserved for bicycles and motorists.
Bike Routes	To provide continuity of bikeway system along routes not served by Bike Lanes or Bike Paths. Bike Routes are shared facilities, either with motor vehicles on the street or with pedestrians on sidewalks.

The Santa Clara County Bicycle Plan identifies regional bicycle routes that provide for inter-city commuting. Portions of the Milpitas Bikeway System are identified in this regional plan.

Trails and Walkways

Milpitas Trails Master Plan. Recognizing that an off-street trail system will enhance the quality of life within Milpitas by providing an alternative transportation system, expanding recreational opportunities and improving the environmental conditions of those trail corridors that parallel creeks, the City Council adopted the Milpitas Trails Master Plan on June 3, 1997. Several of the trail corridors identified in the Trails Master Plan will provide direct, grade-separated routes from home to work, school and shopping. The direct access and lack of street crossings provided by grade separated facilities enhances the convenience of the off-street trail system. This added convenience encourages more people to bicycle and walk. The trail system will provide access to the Town Center, the Great Mall, all of the major employment centers, numerous schools and parks and the Tasman Corridor Light Rail stations.

Approximately 35 miles of trails are identified in the Master Plan (see Figure 3-2). Of these, 6 miles have been built and 29 miles are proposed, including about 4 miles of on-street connectors proposed to link together the off-street system. The majority of trails identified in the plan follow the creeks, rail corridors and utility right of ways that traverse the City. In addition, the Midtown Specific Plan promotes the development of these trails. The trails are categorized into the following four groups:

- Regional Trails are those routes identified in the Santa Clara County Trails Master Plan as having national, state or regional significance. In Milpitas these are the Coyote Creek Trail, the San Francisco Bay Trail and the Juan Bautista de Anza National Historic Trails (which share the same alignment in Milpitas), and the Bay Area Ridge Trail.

- City Trails provide north-south and east-west cross-town routes and extend beyond the City limits to Fremont and San Jose. These trails provide recreation and transportation benefits by linking neighborhoods with employment centers, shopping districts, schools, and transit facilities. City Trails include the Berryessa Creek Trail, Calera Creek Trail, Hetch-Hetchy Trail, Penitencia Creek Trail, and Wrigley Creek/Union Pacific Railroad Trail.

- Neighborhood Trails connect homes with schools and parks and provide pedestrian and bicycle access to local shops and markets. They include the Hillcrest Park/Ben Rogers Park Trail, McCarthy Ranch Jogging Trail and Par Course, Rancho Milpitas Middle School/Sinnott School Trail and the Yellowstone Park Trail.

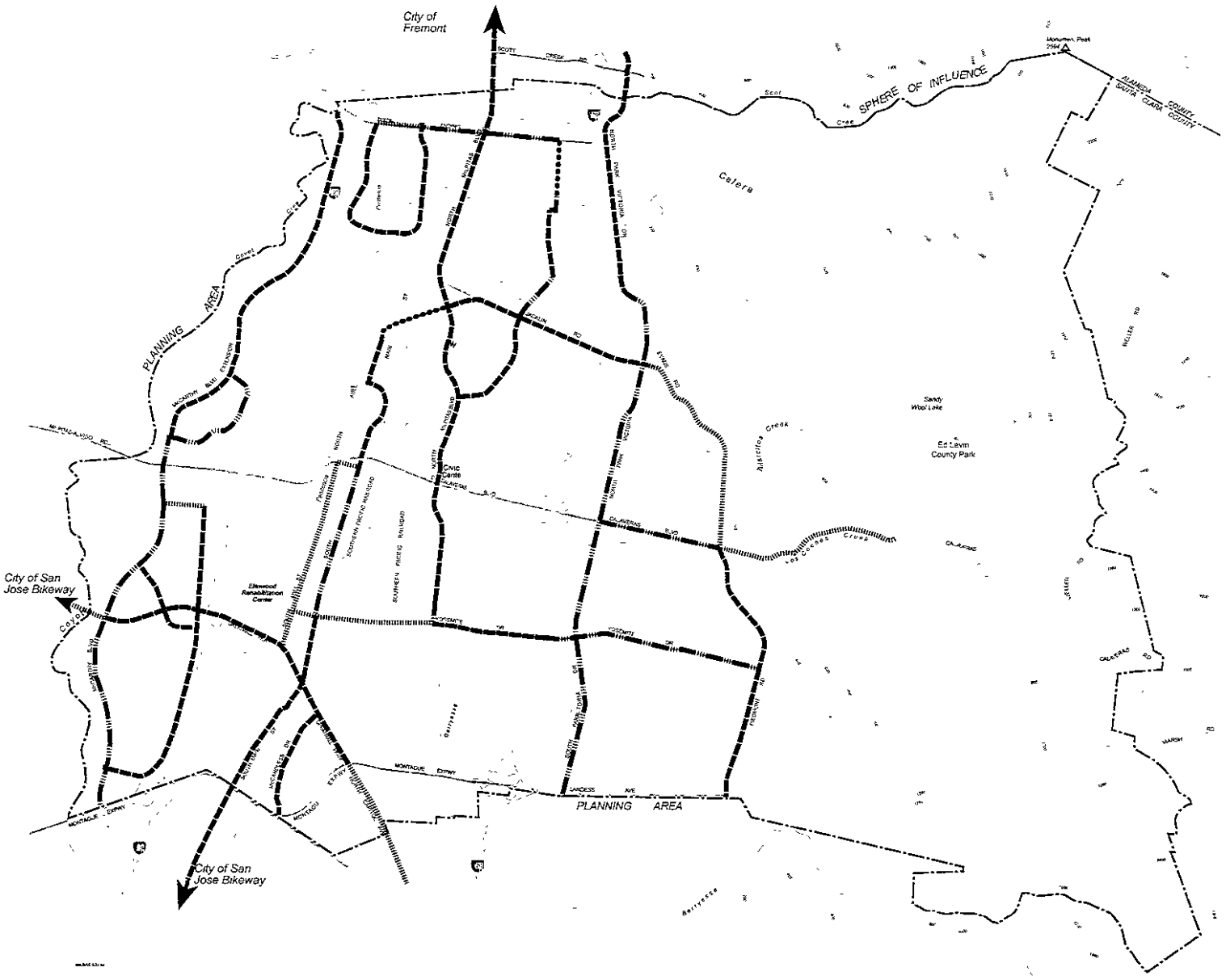
- On-Street Connectors consist of on-street bicycle lanes and routes that link segments of the off-street trail system where no other route is available. They include Calaveras Road, Yosemite Drive and North Park Victoria Drive.

The Trails Master Plan details trail types and the specific corridors included in the plan, offers general analysis, prioritizes trail projects and provides preliminary budget estimates. The Master Plan notes that detailed trail alignment studies for each corridor will be needed as trail projects move forward towards development.

Sidewalks and Streetscapes. Pedestrian activity (as well as the enjoyment of walking) is increased when walkway facilities are safe, comfortable and attractive. Some of the best ways to enhance walkways are through the provision of adequate sidewalk width, buffers between the pedestrians and traffic and ample landscaping, particularly street trees. Street trees have soothing visual impact, provide shade and a habit for wildlife and add to property values. However, City maintenance costs can be expected to increase as street trees grow taller, requiring additional and more difficult pruning. Sidewalk damage is one of the difficult problems in street maintenance, and one reason for the increased use of monolithic sidewalks located next to the curb, which widens the appearance of the street and reduces pedestrians' sense of safety by putting them closer to traffic.

Bikeways

Figure 3-1



- Bike Lane
- Bike Route
- Pedestrian/Bike Path
- Proposed Bikeway

Source: City of Milpitas Master Bikeway Plan, 1999
Midtown Specific Plan, 2001

10 acre

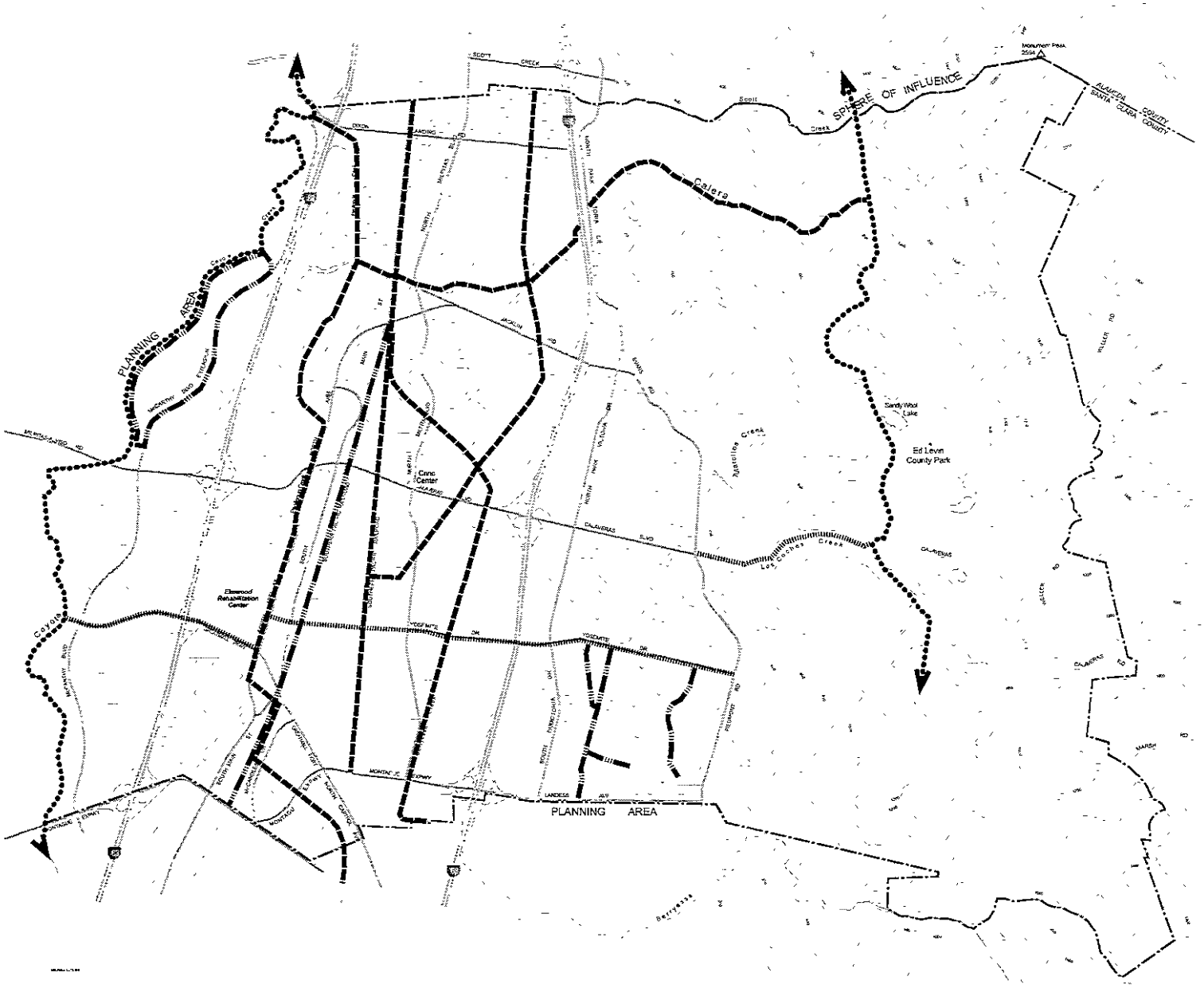
0 100 260 1 MILE

City of Milpitas
GENERAL PLAN

March 2002

Trails

Figure 3-2



- Regional Trails
- City Trails
- Neighborhood Trails
- On Street Connectors

10 acres

0 1000' 2600' 1 MILE

City of Milpitas

GENERAL PLAN

1999

3.6 Goods Movement

Providing adequate circulation for trucks is necessary for economic development of the City by facilitating transportation of goods and products. In Milpitas, there is a four-ton weight limit restriction on all streets, except those shown on Figure 3-2. Therefore, by default, through truck traffic can only utilize the exempted sheets, which can be referred to as “truck routes.” The routes shown in the Figure serve as primary commercial truck movements entering and leaving the City. Trucks, however, can use any street to get to and from specific delivery locations when a restricted street is on the direct path to the origin or destination and there is no other permitted facility.

3.7 Circulation Principles and Policies

a. Standards for Traffic Safety

Guiding Principles

3.a-G-1 Continue to utilize the City's adopted Level of Service standards in evaluating development proposals and capital improvements.

Current City LOS standards apply only to development east of I-880.

3.a-G-2 Maintain acceptable service standards for a major streets and intersections.

Implementing Policies

3.a-I-1 Strive to maintain CMP LOS standards and goals for the CMP Roadway System in Milpitas.

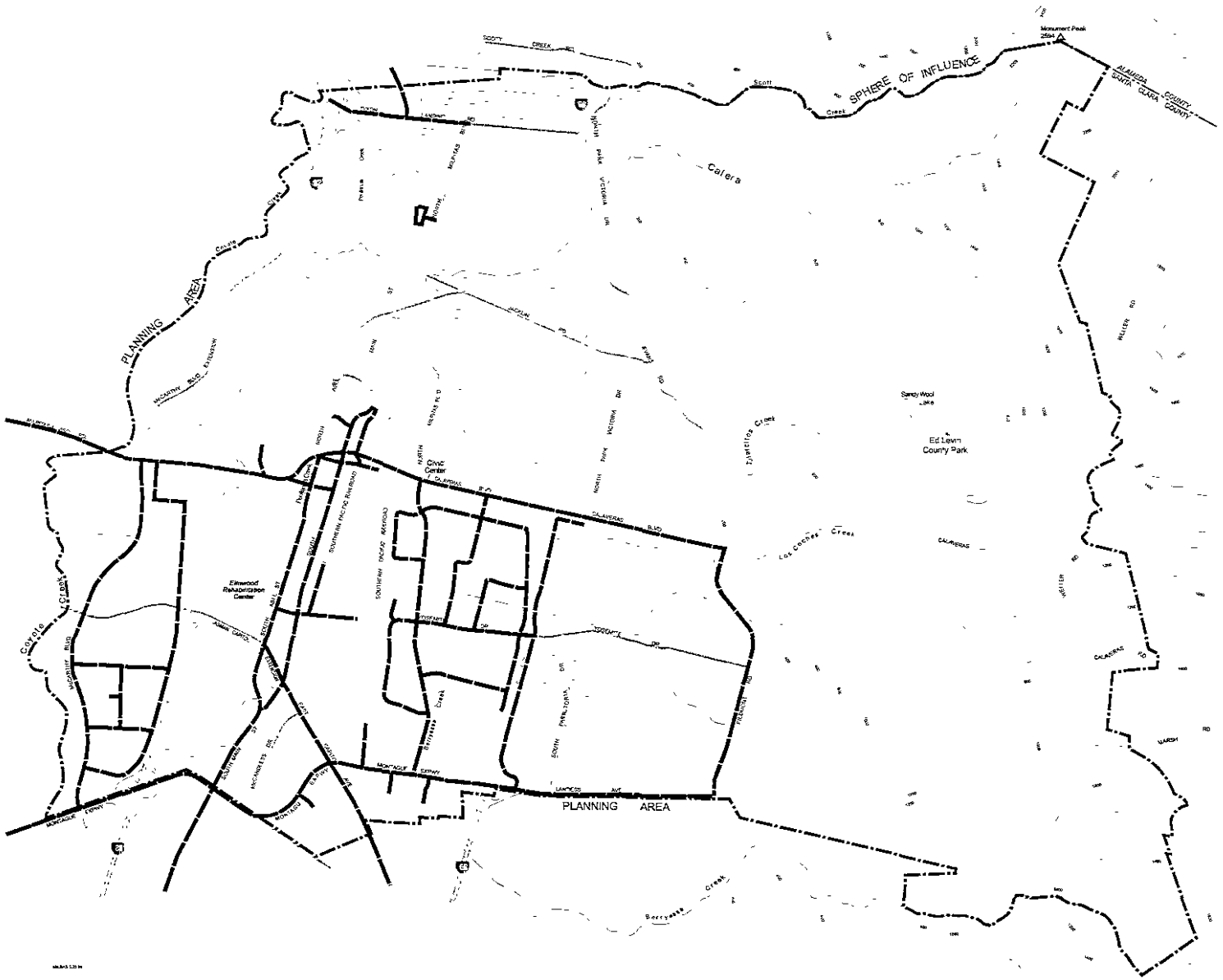
3.a-I-2 For collectors and arterials east of Interstate 880 operating at baseline (1991) LOS F, require any development project that impacts the facility at or greater than one percent of facility capacity to implement mitigation measures to reduce the development project's impacts below the one percent level. If an identified location cannot be mitigated, measures designed to improve system-wide levels of service can be implemented. These system-wide improvement strategies will be contained in the Citywide Deficiency Plan.

Conforms to CMA requirements and existing City LOS policy.

3.a-I-3 Recognize that the City's development pattern and deficiencies in the regional network have resulted in substandard service levels on certain streets where capacity cannot be increased.

Truck Routes

Figure 3-3



Streets without weight limit restrictions

Source: City of Milpitas

10 acres

0 1000' 2600' 1 MILE

City of Milpitas
GENERAL PLAN

July 1997

3.a-I-4 On streets where substandard service levels are anticipated, investigate and implement improvement projects that will enhance traffic operations.

Measures such as parking prohibitions, turn prohibitions and minor widening should be evaluated on streets where existing development and space constraints make major widening projects infeasible.

Streets expected to operate at LOS F at Plan buildout are:

- *Route 237 between Abel Street and the southern Pacific railroad tracks; and*
- *Montague Expressway between McCarthy Boulevard and Old Oakland Road , and between Capitol Avenue and Highway 680.*

3.a-I-5 Continue to monitor traffic service levels and implement Circulation Element improvements prior to deterioration in levels of service to below the stated standard.

Development approvals should require demonstration that traffic improvements necessary to serve the development without violating the standard will be in place to accommodate trips generated by the project.

b. Street Network and Classification Principles and Policies

Guiding Principles

3.b-G-1 Develop a street network integrated with the pattern of living, working and shopping areas, and which provides for safe, convenient, and efficient vehicular movement within the City and to other parts of the region.

3.b-G-2 Direct special consideration toward the circulation needs of a modern, convenient central business district, including adequate off-street parking.

3.b-G-3 Promote a street pattern that encourages industrial growth.

3.b-G-4 Use the “Major Improvements Needed” sub-section as a basis for identifying, scheduling, and implementing roadway improvements as development occurs in the future.

Implementing Policies

3.b-I-1 Require new development to pay its share of street and other traffic improvements based on its impacts.

3.b-I-2 Require all projects that generate more than 100 peak-hour (A.M. or P.M.) trips to submit a transportation impact analysis that follows guidelines established by CMP.

This is part of the CMP requirements.

3.b-I-3 As part of the Capital Improvement Program (CIP), annually update a five-year program of projects required to construct and/or update circulation facilities.

While some of the projects identified in the Circulation Element are in the City's current CIP, the remaining projects will need to be incorporated.

3.b-I-4 Continue to actively seek funding from regional, state and other agencies for projects identified in Table 3-4 and others included in the City's CIP.

c. Transportation Systems Management

Guiding Principles

3.c-G-1 Promote measures that increase transit use and lead to improved utilization of the existing transportation system.

3.c-G-2 Cooperate with other agencies to promote local and regional transit serving Milpitas.

Implementing Policy

3.c-I-1 Actively support regional planning efforts for the development of mass transit facilities generally along either the Union Pacific or Southern Pacific Railroad corridors.

d. Pedestrian and Bicycle Circulation Principles and Policies

Guiding Principles

3.d-G-1 Promote walking and bicycling for transportation and recreation purposes by providing a comprehensive system of sidewalks, bicycle lanes and routs and off-street trails that connects all parts of the City.

3.d-G-2 Provide adequate bicycle parking and end-of-trip support facilities for bicyclists at centers of public and private activity.

3.d-G-3 Promote intermodal commuting options.

3.d-G-4 Encourage a mode shift to non-motorized transportation by expanding current pedestrian and bicycle facilities.

Implementing Policies

3.d-I-1 Complete the on-street bicycle and the off-street circulation systems as depicted and described in the Bikeways and Trails Master Plans.

3.d-I-2 Develop connections between the off-street trail system and on-street bicycle system to fully integrate these facilities. Maximize linkages to other trail and bikeway systems to provide alternative transportation routes for pedestrians and bicyclists.

3.d-I-3 View all public capital improvement projects as opportunities to enhance the bicycle and pedestrian systems, and incorporate bicycle and pedestrian facilities into the design of such projects wherever feasible.

3.d-I-4 Encourage walking, biking and transit use by improving bicycle and pedestrian connections to transit centers, specifically the Great Mall and Main/Weller bus transit centers and light rail stations and the proposed commuter/passenger rail stations.

3.d-I-5 Distribute the Milpitas Bicycle Map, Trail Map, bicycle safety information and other related materials at City buildings and schools, and special events.

3.d-I-6 Use funds from the Streets budget for bicycle and pedestrian projects as appropriate.

3.d-I-7 Actively pursue external grant funds for bicycle and pedestrian capital improvement projects.

3.d-I-8 Consider developing additional local sources of funding for trails and bikeways such as special assessment districts, nonprofit corporations and ballot initiatives.

3.d-I-9 Require developers to make new projects as bicycle and pedestrian "friendly" as feasible, especially through facilitating pedestrian and bicycle movements within sites and between surrounding activity centers.

3.d-I-10 Encourage developer contributions toward pedestrian and bicycle capital improvement projects and end-of-trip support facilities.

Bikeway Policies

3.d-I-11 Make improvements to roads, signs, and traffic signals as needed to improve bicycle travel.

3.d-I-12 Discourage speed bumps and other street features that hinder bicycling on public streets and private parking lots.

3.d-I-13 Where appropriate, install bicycle lockers and/or racks at public parks, civic buildings and other community facilities.

3.d-I-14 Include evaluation of bicycle facility needs in all planning applications for new developments and major remodeling or improvement projects.

3.d-I-15 Encourage new and existing developments to provide end-of-trip facilities such as secure bicycle parking, on-site showers and clothing storage lockers, etc.

3.d-I-16 Support bicycle education programs.

Trail Policies

3.d-I-17 Acquire adequate set backs and right of way to complete the Trails master Plan.

3.d-I-18 Provide and accommodate recreational and transportation use of the trail system.

3.d-I-19 Preserve and enhance the natural environment of the creek corridors in conjunction with each trail project.

3.d-I-20 Monitor proposed developments and work with applicants to design projects that preserve the integrity of the identified trail routes.

3.d-I-21 Consider building bridges or undercrossings across creek channels, railroad lines and roadways to facilitate bicycling and walking..

3.d-I-22 Use existing cul de sacs, bridges and other public improvement areas as trail access points wherever possible.

3.d-I-23 Use existing parks, schools and other public facilities as staging areas wherever possible.

3.d-I-24 Where appropriate, require new development provide public access points to the trail system and/or contribute to staging areas.

3.d-I-25 Encourage existing busiinesses to provide access to the trail system.

Sidewalk Policies

3.d-I-26 Require sidewalks on both sides of the street as a condition of development approval, where appropriate with local conditions.

3.d-I-27 Review City street improvement standards to see if there are ways to increase walking enjoyment and safety, particularly with regards to increased sidewalk width, landscape buffers between sidewalks and streets and pedestrian lighting.

3.d-I-28 Develop a Streetscape Master Plan that identifies goals and policies for improving the appearance and enjoyment of public streets and sidewalks in Milpitas, particularly with regards to landscaping, street furniture and the identification of significant entryways and corridors.

e. Goods Movement

Guiding Principle

3.e-G-1 Provide adequate circulation and off-street parking and loading facilities for trucks.

Implementing Policies

3.e-I-1 Restrict trucks to designated non-restricted routes.

Truck routes in the City are regulated by Section V-100.12.05 of the Municipal Code.

3.e-I-2 Ensure that adequate pavement depth, lane widths, bridge capacities, loading areas, and turn radii are maintained on the permitted streets.